

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for treating cancer, comprising administering to a patient that has cancer a protein that comprises a receptor-antagonizing domain and a positive immunomodulator domain, wherein the receptor-antagonizing domain is a prolactin-antagonist domain **that comprises an amino acid substitution at position 129 in hPRL₁**, and the positive immunomodulator domain is a cytokine.

2. (Canceled)

3. (Previously Presented) The method according to claim 1, wherein the positive immunomodulator domain is an interleukin.

4. (Previously Presented) The method according to claim 3, wherein the interleukin is an IL-2.

5. (Previously Presented) The method according to claim 3, wherein the positive immunomodulator domain is an IL-12.

6. (Previously Presented) The method according to claim 3, wherein the positive immunomodulator domain is IFN γ .

7.-21. (Canceled)

22. (Previously Presented) The method according to claim 1, wherein cells of the cancer overexpress a prolactin receptor at levels greater than in normal, healthy cells.

23.-27 (Canceled)

28. (Currently Amended) A method for inducing an immune response in an individual that has cancerous cells, comprising administering to said individual a protein comprising (i) a prolactin-antagonist domain **that comprises an amino acid substitution at position 129 in hPRL₁**, and (ii) an immunomodulatory domain, wherein said immunomodulatory domain is a cytokine.

29. (Currently Amended) The method of claim 28, wherein said prolactin-antagonist domain comprises a protein consisting essentially of the amino acid sequence of ~~SEQ ID NO. 1.~~ SEQ ID NO. 34.

30.-33. (Canceled)

34. (Currently Amended) The method of claim 28, wherein the amino acid at position 129 ~~of SEQ ID NO. 1~~ is arginine.

35. (Previously Presented) The method of claim 28, wherein said cancerous cells express prolactin receptors at a level greater than that of normal, healthy cells.

36. (Previously Presented) The method of claim 28, wherein said immunomodulatory domain is selected from the group consisting of IL-2, IL-12, and IFN.

37. (Previously Presented) The method of claim 28, wherein said immunomodulatory domain is IL-2.

38. (Previously Presented) The method of claim 28, wherein said immunomodulatory domain is IL-12.

39. (Previously Presented) The method of claim 28, wherein said immunomodulatory domain is IFN γ .

40.-44. (Canceled)

45. (Currently Amended) A method for inducing an immune response in an individual that has cancerous cells, comprising administering to said individual a protein comprising (i) a domain that binds to a receptor expressed on a cancer cell altering the function of said receptor, and (ii) another domain that elicits an immune response that is targeted to said cancer cell, wherein the domain that binds to a receptor expressed on a cancer cell is a prolactin antagonist domain that comprises an amino acid substitution at position 129 in hPRL.

46. (Currently Amended) The method of claim 45, wherein the prolactin-antagonist domain has an arginine at position 129 ~~of the prolactin protein.~~

47. (Currently Amended) The method of claim 46, wherein the prolactin-antagonist domain comprises the protein of a protein comprising the amino acid sequence of SEQ ID NO. 1. SEQ ID NO. 34.

48.-50. (Canceled)

51. (Previously Presented) A method for treating cancer, comprising administering to a patient that has cancer a protein that comprises a receptor-antagonizing domain and a positive immunomodulator domain, wherein the receptor-antagonizing domain is a growth hormone antagonist domain that comprises an amino acid substitution at position 120 in hGH, and wherein the positive immunomodulator domain is an interleukin a cytokine.

52. (Previously Presented) The method according to claim 51, wherein the interleukin is an IL-2.

53. (Previously Presented) The method according to claim 51, wherein the positive immunomodulator domain is an IL-12.

54. (Previously Presented) The method according to claim 51, wherein the positive immunomodulator domain IFN.

55. - 60. (Canceled)

61. (New) The method of claim 1, wherein the prolactin antagonist domain comprises the protein of SEQ ID NO: 34.

62. (New) The method of claim 1, wherein the amino acid at position 129 is a bulky side-chain amino acid.

63. (New) The method of claim 28, wherein the amino acid at position 129 is a bulky side-chain amino acid.

64. (New) The method of claim 29, wherein said cancerous cells express prolactin receptors at a level greater than that of normal, healthy cells.

65. (New) The method of claim 29, wherein said immunomodulatory domain is selected from the group consisting of IL-2, IL-12, and IFN.

66. (New) The method of claim 29, wherein said immunomodulatory domain is IL-2.

67. (New) The method of claim 29, wherein said immunomodulatory domain is IL-12.

68. (New) The method of claim 29, wherein said immunomodulatory domain is IFN γ .

69. (New) The method of claim 51, wherein the positive immunomodulator domain is an interleukin.

70. (New) The method of claim 51, wherein the amino acid at position 120 is a bulky side-chain amino acid.

71. (New) The method of claim 51, wherein the amino acid at position 120 is an arginine.